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THE RACES OF EUROPE.¹

It appears at first sight an anomaly that the first thorough anthropological description of the populations of Europe—with parts of Asia and Africa—should be exported from America, and the further fact that such a work has been constructed in Boston may seem to lend color to the time-honored theory that that city is indeed the hub of the universe. The real anomaly is, however, that American students have so long and so thoroughly neglected the study of the physical and psychological characteristics of the different populations from which our own was formed and from which it is constantly recruited. For our theoretical interest in the matter ought to be as great, and our practical interests are even greater than those of the European nations themselves. And as for the human material for such studies, every passenger ship brings it to our shores, and cities like New York and Chicago offer unrivaled opportunities for comparison between the different races. Yet the attention given to the study of men as such has been ridiculously meager in proportion to that given to various single aspects of their activity and history; and even among the anthropologists, with the exception of a short period after the Civil War, anthropology has meant mainly the study of the aborigines. The study of the races, as distinct from merely political or linguistic groups of Europe has, indeed, been sadly neglected until lately in Europe itself; perhaps on the theory that, if not all men, at least all Europeans, are approximately equal; perhaps with the idea that the living population can as well be studied later on, when leisure can be had from the examination of the more perishable data of the ethnology of savage or barbarous peoples—an idea utterly erroneous, from the fact that with modern transportation and the growth of cities the separate groups of population are losing their individuality, and from the further fact that under the play of natural selection the character of the population is

¹ WILLIAM Z. RIPLEY, *The Races of Europe: A Sociological Study* (Lowell Institute Lectures), 8vo pp. xxii + 624. Accompanied by *A Selected Bibliography of the Anthropology and Ethnology of Europe*, pp. x + 160. New York, D. Appleton & Co., 1899.

A large portion of the present work was first published in *Appleton's Popular Science Monthly*, 1897-1899, under the title, "The Racial Geography of Europe."

rapidly changing in many regions and in many social categories. In point of fact, the anthropology of living populations is one of the studies which has a strong claim to immediate prosecution, on the basis of the theory that science should collect, first of all, the data which are needed for its further progress, but which are in danger of slipping through its hands. In recent years there has been some realization of this fact, and extensive studies of the living population of various sections of Europe have been undertaken, partly under government patronage and partly through the untiring efforts of individual scientists. These researches have already yielded a descriptive knowledge of the populations of large parts of Europe. They have, secondly, thrown new light on many historical problems, and they have, lastly, suggested certain hypotheses as to the psychology of the different racial elements, which hypotheses, if they are confirmed by further investigation, must become the prolegomena of any solid science of sociology.

For all these reasons Professor Ripley's work, which represents the labor of six years, and which summarizes a large proportion of the results thus far available, ought to be of great interest to all students of history, psychology, and sociology. It is, of course, less directly connected with economic theory, but it has large importance for the problems of social economics in the wider sense. In this review I shall omit as far as possible the matters of more purely anthropological interest, and shall emphasize especially the sociological aspects of the work. I shall speak first of some special features, the typical portraits, the maps, and the extensive bibliography. I shall then give a summary of the descriptive material, with some remarks on certain of Professor Ripley's interpretations. Thirdly, I shall comment upon his theories of the origin and development of the different races and peoples, bringing his views in these matters into relation with those maintained in the still more recent monograph of Lapouge.¹ Lastly, I shall have occasion to discuss Professor Ripley's attitude toward anthropo-sociology and the study of the psychological character of the different races.

I.

A feature of the work that immediately attracts attention is the magnificent series of portraits typical of the various races and types of

¹ *L'Aryen*, now in press. The reader will find a translation of the introductory chapter, "Old and New Aspects of the Aryan Question," in the *American Journal of Sociology*, November 1899.

humanity discussed. There are more than two hundred of these typical portraits representing usually both the profile and the full face view of half as many individuals selected as representative. Professor Ripley has been fortunate in securing, for this part of the work especially, the co-operation of a large number of anthropologists; and he has well repaid their co-operation by bringing under a single cover the results of so many scattered investigations.

No less excellent in conception and execution is the series of over eighty maps and diagrams with which the text is enriched. A single one of these maps often presents a more accurate and detailed, as well as a vastly clearer and more forcible, picture of a given population than could be embodied in a whole chapter of description. The main facts presented in the body of the work, apart from explanations, could almost be apprehended from a study of the maps alone. They are of immense value not only in clarifying the main facts for the general reader, but in presenting the detailed data of racial geography in a way that enables the student to trace the correlation between these data and the physical features of the country on the one hand, and on the other hand, the political and religious tendencies, the intelligence, culture, and civilization of the different populations.

In this admirable system of graphic representation two features deserve particular mention. One is the reduction to a common basis of the data taken in different countries and under different systems and again of the data derived sometimes from the measurement of crania and sometimes from the measurement of living individuals. Professor Ripley has given close attention to these possible sources of confusion, as is shown especially in his preliminary monograph, *Notes et documents pour la construction d'une carte de l'indice céphalique*,¹ and even if he has in some instances been obliged to resort to "a little healthy generalizing," the results may in general be regarded as approximately correct. Somewhat similar difficulties have been overcome in reducing to a common basis the variously conducted enquiries as to the color of the hair and eyes of different populations.

The other notable feature is the uniform and systematic scheme of shading. Throughout the work the light tints always stand, in maps dealing with head-form, for dolichocephaly; in those representing pigmentation, for light hair and eyes; in those relating to bodily dimensions, for prevailing tall stature. The light tints therefore

¹ *L'Anthropologie*, vol. vii. pp. 513 *et seq.*

almost uniformly suggest the presence in pure or mixed form of the tall, blondish, dolichocephalic race, which people have in mind when they speak of the Teutonic and Anglo-Saxon races; in a word *Homo Europæus*. Not only this, but the shading is so arranged that in each map each degree of variation in shading stands for an equal degree of variation in the facts recorded, and at the same time, so that in the different maps dealing with the same class of phenomena a given shade represents uniformly the same or approximately the same conditions. Thus for example in each map dealing with head-form, the tints darken in the same ratio as the cephalic index increases; and again as between different maps the same tint indicates approximately the same index. Apart, then, from the subject-matter which they embody, the maps are of value as an example of method in graphic representation.

Some few points of criticism occur in connection with the maps. If not all the maps are constructed in accordance with the general scheme, the reason usually is that the data taken from other authors are in such form as not to allow it. But this excuse does not apply to all the exceptions; the map of head-form in Würtemberg (p. 233) might advantageously have been made to correspond, at least roughly, with the general scheme of shading. Again, the drawing of some of the maps is faulty, notably the maps of average stature in Europe (p. 96) and of cephalic index throughout Europe (p. 53). In both of these maps the river Ems has apparently exchanged its headwaters with the Weser; by the time, however, that we reach the plan of the physical geography of Germany (p. 216) each river has again come into its own. Another imperfection is the lack of a map of cephalic index for certain countries, notably Germany. It is true that the data for this country are somewhat fragmentary, but such as they are, they might well be presented on a somewhat larger scale than they can be in the meager space apportioned to Germany in the author's general map of Europe.

The *Bibliography of the Anthropology and Ethnology of Europe* constitutes a separate volume, which can be used independently and is at the same time an appendix to the main work. It is in itself a considerable achievement. It is in some degree the result of the co-operation of the authorities of the Boston Public Library, an institution which has, perhaps, the most complete collection in the world of books upon this subject. The bibliography contains nearly two thousand titles, arranged by authors and also by countries and subjects, and in many fields is fairly complete. At the few points, however, at

which I have had occasion to test it, I note some rather surprising omissions. If no mention is made of Frederick Nietzsche, it may be because our author does not take very seriously his doctrine of the superiority of "the noble blond beast of prey." A more serious omission is that of any reference to De Gobineau, whose *Essai sur l'inégalité des races humaines* (Paris, 1854) was a pioneer work in its field and still retains its value from many points of view. Two of the essays of A. Drumont are mentioned, but various others as pertinent to the subject are passed over in silence, along with his two principal works, *Dépopulation et civilisation* (Paris, 1890) and *Natalité et démocratie* (Paris, 1898). No mention is made of Novicow, although his *Luttes entre les sociétés humaines* (Paris, 1893), and especially his *L'Avenir de la race blanche* (Paris, 1897) deserves to be included on the score of their subject-matter, if not because of any great intrinsic excellence.¹ It would seem also that Demolins's *A quoi tient la supériorité des Anglo-Saxons ?* (Paris, 1897) ought to be noted. Another reference that might be added is Cooley: "Genius, Fame, and the Comparison of Races" (*Annals American Academy of Political and Social Science*, May 1897). Karl Pearson's *The Chances of Death, and Other Studies in Evolution* (2 vols., London, 1897) deserves mention on the score, at least, of part of its contents. C. H. Pearson, by the way, fares little better than his namesake; for his name is omitted from the bibliography, although his *National Life and Character* is referred to in the body of the work in the chapter on colonization. *La population: les causes de ses progrès et les obstacles qui en arrêtent*, by E. van der Smissen (Paris, 1893) should be mentioned, since it treats its subject in part from the racial point of view. Muffang's "Écoliers et étudiants de Liverpool" (*Anthropologie*, 1899, pp. 21 *et seq.*) perhaps appeared too late to obtain a place in the list. Dr. Francis Warner's "Results of an Inquiry as to the Physical and Mental Condition of Fifty Thousand Children Seen in One Hundred and Six Schools" (*Journal Royal Statistical Society*, March 1893, pp. 71 *et seq.*) is surely based on sufficiently extensive material to entitle it to a line or two in the bibliography. It is significant of the state of isolation and unconsciousness of each other's existence that has prevailed between the study of European anthropometry and that of the anthropometry of college students in America that the names of Doctors Hitchcock,

¹ These works of Novicow are, however, included in a list of authorities on acclimatization in the body of the work.

Sargent, and Wood do not appear in Professor Ripley's list. Yet the reports, and still more the records, of the American university gymnasiums contain rich stores of material of interest, especially for the sociological aspects of European anthropology, and a beginning has been made in utilizing such material at Harvard and Stanford universities, as well as under Professor Ripley's own direction at the Massachusetts Institute of Technology. Several studies of the activity and influence of different European nationalities in America should be noted—among others, "The Distribution of Ability in the United States," by Henry Cabot Lodge (*Century Magazine*, September 1891), *Is the Puritan Element Overestimated?* by F. W. Shepardson (Granville, Ohio, 1892), and various writings cited by the latter. In regard to the correlation between the racial and physical characteristics and the psychological tendencies of American school children, the student will have to add to Ripley's list the names of Dr. A. MacDonald,¹ F. W. Smedley, and C. V. Campbell, whose work promises to be of the highest importance. To return to works dealing more directly with European populations, I note that no reference is made to Dietlein's "Über Zahnwechsel und verwandte Fragen" (*Anatomischer Anzeiger*, 1895, pp. 354 *et seq.*), a study which has a broader significance for anthropology than its title would indicate. The *Étude anthropométrique* of Pauline Tarnowsky (Paris, 1889), which is also important for the question of social stratification, has escaped mention. Another brief but important study that has slipped through the meshes of the bibliographical sieve is Havelock Ellis's ethnical analysis of "The Genius of France" (*Atlantic Monthly*, vol. lxxv. pp. 72 ff.). More serious, perhaps, is the omission of Dr. Otto Seeck's *Geschichte des Untergangs der antiken Welt* (Berlin, 1895), one of the few purely historical works that are written with some conception of the effect in society of natural selection. A work the title of which should have secured it a complimentary admission to Ripley's list is Kindere: *De la race et de sa part d'influence dans les diverses manifestations de l'activité des peuples*. Most surprising of all is the failure to mention the important publications of Alfred Fouillée: "La psychologie des peuples et l'anthropologie" (*Revue des Deux Mondes*, March 1895); "Dégénérescence? le passé et le présent de nôtre race" (*ibid.*, October 1895); and *Psychologie du peuple français* (Paris, 1898).

¹ *Experimental Study of Children, including Anthropometrical and Psycho-Physical Measurements*. . . . United States Bureau of Education, Washington, 1899.

The omissions mentioned above concern mainly works important for the sociological aspects of anthropology. Being out of reach of any large library, I am less able to judge of the completeness of the bibliography in the more general field of descriptive anthropology and ethnology. On the side of historical anthropology it is certainly far from complete. I have collected in a footnote the titles of some of the works omitted from Professor Ripley's bibliography which have been utilized by Lapouge in his forthcoming work *l'Aryen*. A few of these works are only incidentally concerned with anthropology, and some few others are of too recent a date for Professor Ripley's compilation, but most of them are of considerable importance. This list may be considered as a supplement to Professor Ripley's bibliography, and that largely on one aspect of the subject; but its length is to be regarded not as a criticism of that work, but as an indication of the richness of the literature and the importance of the subject.¹

¹ BULWER LYTTON, *Zanoni*, 1842. LATHAM, preface to the *Germania* of Tacitus, 1851. PENKA, "Die Entstehung der arischen Rasse," *Ausland*, 1891. WILSER, "Stammbaum der arischen Völker," *Naturwissenschaftliche Wochenschrift*, 1898, vol. xiii. p. 361. WEINBERG, *Die Gehirnentwicklungen bei den Esten*, Dorpat, 1894; *Das Gehirn der Letten*, Cassel, 1896. DE BISSING, "Les origines de l'Égypte," *l'Anthropologie*, 1898, vol. ix. pp. 24 *et seq.* BERTHELOT, "Sur les mines du cuivre de Sinaï," *C. R. Académie des Sciences*, 1896, vol. ii. pp. 365 *et seq.*; "L'Age du cuivre en Chaldée," *ibid.*, 1897, vol. i. pp. 328 *et seq.* MARIETTE, *Galerie de l'Égypte ancienne*. SCHIAPARELLI, *Una tomba egiziana della VI. dinastia*, Rome, 1892. BASSET, *Le dialecte de Syouah*, Paris, 1890. LÉTOURNEAU, "La paléographie mégalithique," *Revue Scientifique*, 1897, vol. viii. pp. 142 *et seq.* FLAMANT, "Note sur les stations . . . de pierres écrites du Süd-Oranais," *Anthropologie*, 1892, vol. iii. pp. 145 *et seq.*; "Note sur deux pierres écrites," *ibid.*, 1897, vol. viii. pp. 284 *et seq.* EVANS, "Primitive Pictographs and a Pre-Phœnician Script from Crete," *Journal of Hellenic Studies*, 1894, vol. xiv. pp. 270 *et seq.*; "Further Discoveries of Cretan and Ægean Script, with Libyan and Proto-Egyptian Comparisons," *ibid.*, 1897, vol. xvii. pp. 327 *et seq.* VIRCHOW, "Eröffnung prähistorischer Gräber in Worms," *Zeitschrift für Ethnologie*, 1897, vol. xxix. pp. 464 *et seq.* WEINZIERL, "Der prähistorische Wohnplatz und die Begräbnisstätte auf der Lösskuppe von Lobositz," *Zeitschrift für Ethnologie*, 1895, vol. xxvii. pp. 49 *et seq.* VAN MUYDEN and COLOMB, *Antiquités lacustres*, Lusanne, 1896. SCHENK, "Étude sur les ossements humains des sépultures néolithiques de Chamblandes," *Archives des Sciences*, 1898, vol. iii. pp. 536 *et seq.*, and another essay, *ibid.*, 1868, vol. iii. pp. 366 *et seq.* VERNEAU, "Un nouveau crâne humain d'une cité lacustre," *Anthropologie*, 1894, vol. v. pp. 54 *et seq.* DE BAYE, "Notes sur l'âge de la pierre en Ukraine," *Anthropologie*, 1895, vol. vi. pp. 1 *et seq.*; "Notes sur l'époque des métaux en Ukraine, *ibid.*, pp. 374 *et seq.* MEISSNER, *Beiträge zum altbabylonischen Privatrecht*, Leipzig, 1893. DESMOULINS, *Histoire naturelle des races humaines*, Paris, 1826. UJFALVY, "Les Huns blancs," *Anthropologie*, 1893, vol. ix. pp. 259 *et seq.* JOHNSTON, "Race et caste dans

II.

The first two chapters in the book are introductory in character. Chapter I insists strongly upon the influence of geographical and natural economic conditions upon the type of population and the development of civilization. This chapter reveals already the author's penchant, which appears at various places throughout the work, for tracing historical and social phenomena back to the influence of physical environment. The other introductory chapter discusses the mutual relations of language, nationality, and race. Language often comes to conform to political boundaries, the language of the conquering people being adopted by or imposed upon the inhabitants of the territory absorbed. Customs, folk-lore and tradition are less easily modified, and hence offer better evidences of the origin of any given group. Most stable of all are the physical peculiarities of the people themselves. Race in the physical sense is prior to nationality, language, or civilization; it persists while these may vary; it is the clearest witness of the past.

l'Inde," *Anthropologie*, 1895, vol. vi. pp. 176 *et seq.* DIEULAFOY, *L'Acropole de Suse*, Paris, 1893. HANDY-BEY and REINACH, *Une nécropole royale de Sidon*, Paris, 1896. FRAIPONT and THION, "Explorations scientifiques des cavernes de la vallée de la Meuse," *Mémoires couronnés de l'Acad. de Belgique*, series 8, vol. liv. FAIDHERBE, *Recherches anthropologiques sur les tombeaux mégalithiques de Bosnia*, Bonn, 1866. CHABAS, *Recherches pour servir à l'histoire de la XIX^e dynastie*, Paris, 1873. PERROT, and CHIFFEZ, *Histoire de l'art dans l'antiquité*. KLUGE, *Die Schrift des Mykenier*, Gotha, 1897. CASTANIER, *Histoire de la Provence dans l'antiquité*, Paris, 1893. LAPOUGE, "Les langues de la Gaule avant les Gaulois," *Bulletin historique et philologique*, 1898, pp. 328 *et seq.* SERGI, "Crani siculi neolitici," *Bolletino di Paletnologia italiano*, 1891, vol. xviii.; "Crani antichi di Sicilia e Creta," *Atti della Società romana di Antropologia*, 1895, vol. ii. SOCIÉTÉ DE L'HISTOIRE DE FRANCE, *Extraits des auteurs grecs concernant la géographie et l'histoire des Gaules*. MARICOURT, "Les sépultures de l'Oise," *Congrès scientifique des Catholiques*, 1888, vol. ii. pp. 710 *et seq.* LIVI, "La distribuzione geografica dei caratteri antropologici," *Rivista italiana di sociologia*, 1898, pp. 415 *et seq.* COLLIGNON, "Observations sur les crânes du Vieil-Aitre," *Mémoires de la société d'archéologie lorraine*, 1895. COUTIL, "Cimetière mérovingien et gallo-romain de Muids," *A. F. A. S.*, 1894, pp. 761 *et seq.* HAMY, "Crânes du Boulonnais," *Anthropologie*, 1893, vol. iv. pp. 513 *et seq.* HOUZÉ, "Les Francs des cimetières de Belgique," *Bulletin de la Société d'Anthropologie de Bruxelles*, 1892. VIRCHOW, "Ein im Bette der Lochnitz gefundener Schädel," *Verhandlungen der Berliner Gesellschaft für Anthropologie*, 1895, vol. xxvii. pp. 424 *et seq.*; "Slavische Schädel," *ibid.*, 1895, vol. xxvii. pp. 335 *et seq.* LOUBIER, *Ideal der Schönheit bei den altfranzösischen Dichtern*, Halle, 1890. SCHULZ, *Quid de perfecta corporis humani pulchritudine Germani seculi xii. et xiii. senserint*, Breslau, 1866. BEDDOE, *Selection in Man*.

The best single test of race in most of Europe is head-form, most simply expressed by the cephalic index or the percentage of the breadth of the head to the length. One strong ground for the advantage of head-form over stature, pigmentation, or facial features as a mark of race is its very inconspicuousness and unobtrusiveness. Anything obvious to ordinary observation may come to be regarded as an element of beauty or as the distinguishing mark of a particular social group, and may therefore be favored by sexual selection, and become thus so modified or intensified that it is no longer a trustworthy sign of race. The form of the head is an inconspicuous trait, and one of which the people generally are quite unconscious, so that it is immune from the possible disturbing influence of sexual selection. Moreover, it is affected far less—if at all—by changes in environment and nutrition than is pigmentation and especially stature, and is hence a far better witness of racial relationships.

The notable point in Professor Ripley's discussion of the color of hair and eyes among European populations is his theory which attributes the lighter tints, often prevailing in the mountainous regions, to the effects of scanty nutrition. As the mountains are pre-eminently the home of the brachycephalic Alpine race, while the plains are, throughout northern and central Europe, the home of the dolichocephalic Teutonic elements, the former regions should, on the basis of racial characteristics alone, show the more brunet population. The reverse of this is more often the case. The explanation of this anomaly must be, according to Professor Ripley, the effect of environment acting through nutrition.¹ It is interesting to compare this with the hypothesis of Lapouge, in one sense complementary to it, that the conditions of urban life tend to darken the hair and eyes.² Another explanation of the blondness of mountain populations is that the migration thence to the plains and cities is constantly draining off an element which, while it is tall and dolichocephalic, is also relatively dark.³

Stature, as our author shows in detail, is the result of two factors, race and environment. The effect of differences in environment and nutrition is sometimes to intensify and sometimes to obscure or even

¹ Pp. 75-77, 234, 288, 289. (Where no other reference is given, page numbers will always refer to Ripley, *Races of Europe*.)

² *L'Aryen*, pp. 39-42. Cf. footnote on p. 84 of this article.

³ Pp. 555-559.

counterbalance the differences in bodily height that would follow from the racial composition of different populations.¹ For this reason stature alone is a rather irresponsible witness in attempts at ethnical analysis.

Various selective influences also affect the stature of a population. Thus the practice of excusing from military duty all the conscripts below a certain stature, making it easier for these exceptionally short men to marry young, tends to increase the proportion of such defectives in the next generation. Actual warfare is shown, following the data of Collignon, Ammon, and Lapouge, to have a somewhat complicated selective influence. The children born during the Franco-Prussian war were deficient in stature, while those born after the return of the armies were exceptionally well endowed.² An important point in this connection, which Professor Ripley fails to bring out, is that in a war of longer duration the more favorable conditions after the conclusion of peace would not, in anything like the same degree, neutralize the unfavorable selection exerted during the war, and the total effect would therefore be a deterioration of the population in stature as well as in general physique and character.³

Professor Ripley cites evidence to show that the abnormal conditions of urban life seem to produce a physical degeneracy which manifests itself, among other ways in a decrease of stature among the urban born. This is the more striking from the fact that migrants to the cities usually average taller than the ordinary rural population. It would thus appear that city life for a generation or two has the effect of reducing stature and probably general physique and stamina. This last effect seems, by the way, to be noted by nearly all observers except, perhaps, Dr. Warner, of London, and is clearly established in Baden by the latest researches of Otto Ammon.⁴ If Dr. R. Kuczynski⁵ and A. F. Weber⁶ have recently compelled some modification of the general view of the statisticians that urban populations have to be constantly replenished generation by generation, the explanation is, doubtless, that improved sanitation, the control of contagious disease, the development

¹ Pp. 81-85.

² Pp. 87 *et seq.*

³ Cf. LAPOUGE : *Les Sélections Sociales*, Paris, 1896, pp. 233 *et seq.*

⁴ *Anthropologie der Badener*, 1899, pp. 486 *et seq.*

⁵ *Der Zug nach der Stadt*, München, 1897.

⁶ *The Growth of Cities in the Nineteenth Century*, N.Y., 1899.

of street railways, the abandonment of the old city walls, and the mitigation of the old overcrowding within them, have, during recent years, rendered urban life far more healthful than formerly. If the cities have ceased to be, in Llewellyn-Smith's phrase, "the devourers of the bone and sinew of the country," there is little doubt but that in the past they have been "consumers of men." The data as to the poor physique of urban populations is a link in the chain of evidence that tends to establish this last proposition.

Having presented and analyzed the data of head-form, pigmentation, and stature, for the various parts of Europe, Ripley proceeds to discuss the races which may be distinguished in the varying actual combinations in individuals and populations of these three groups of traits. Following most anthropologists, he sees three great race types, substantially the same as have often been described in this JOURNAL: (1) the Teutonic, or Nordic race, blond, dolichocephalic, and, we may add, aggressive and enterprising—*Homo Europæus*, in the terminology of Lapouge; (2) *Homo Alpinus*, the brachycephalic, shorter, darker, peasant type centered in the Alps and in Auvergne; and (3) the decidedly dark, dolichocephalic Mediterranean race of Spain and southern Italy.

This chapter needs to be read in connection with the appendix devoted to a summary of Deniker's recent more elaborate analysis of European types. While trenchantly criticising most of Deniker's assumptions of the existence of "races" in Europe other than the three above specified, Ripley accepts his term "Dinaric" to designate the tall brachycephalic type which appears to center north and west of the Adriatic. This is the only one of Deniker's hypothetical additions to the races of Europe with which we need to concern ourselves in this review, limited mainly to the aspects of European anthropology of decidedly sociological significance. The other points at issue between the two writers are mainly the concern of descriptive anthropology and of specialists in that field.

With these three or four principal races in mind, we may summarize very briefly the results of the next few chapters, which deal with the population country by country.

Homo Europæus with a center of dispersion around the Baltic and the North Sea, exists in relatively pure form in Scandinavia, along the Russian coast of the Baltic, in Great Britain, Holland, and north (especially northeast) Germany. This race enters as a considerable element

into the population of the main river valleys of south Germany and of Switzerland. It extends into northern Belgium, the northeast of France, and is found in a certain proportion throughout the valleys and more fertile lowlands of the latter country. In Austria it is apparently concentrated in Vienna and the neighboring region, particularly toward the west. In the mountainous and upland region of central Europe this race is in contact and intermingled with brachycephalic races. *Homo Alpinus* seems to constitute the principal element in France, and *Homo Dinaricus* in the Alpine region proper,¹ in much of south Germany, Austria, and northern Italy. This last race appears also to be represented to a considerable extent in eastern Germany. In Spain, Portugal, and southern Italy the Mediterranean race constitutes the mass of the population. In the regions intermediate between these various ethnic areas, and more or less all over Europe, two or sometimes three of these racial strains blend to form extremely mixed actual populations. The masses of the Russians, as distinguished from the Poles, the Letto-Lithuanians along the Baltic, and the Tartars of the Crimea appear to be a people intermediate in stature, pigmentation, and cephalic index.

Such in barest outline is the net result as regards most of Europe of a vast amount of detail collected from various studies of the population of particular countries and localities. In the interpretation of these data perhaps the most striking feature is Professor Ripley's theory of the part played by sexual selection in creating and fixing the physical peculiarities of various groups of population. His conception is that if any noticeable characteristic, such as stature, color of the hair, eyes, or skin, shape of nose or of other features, comes to be recognized by any social group as in some measure peculiar to itself, the individuals possessing that trait will be preferred in marriage, and that the trait will thus become fixed and intensified generation by generation.² Thus the tall stature and blondness of the nobility as compared with the peasantry of various European countries may have

¹ It would seem, therefore, that this race rather than *Homo Alpinus* is better entitled to the latter designation. The paradox arises from the fact that the data of anthropology — that newest of sciences — are outrunning the terminology, even that which has but lately come into use. The term *Alpinus* was adopted before the differentiation was made between these two races or sub-races. Deniker himself avoids the difficulty by calling one Cévenole and the other Dinaric, a terminology that is likely to prevail.

² Pp. 49 *et seq.*

been perpetuated through a half conscious recognition of these traits as characteristic of the upper castes.¹ Thus the peculiar facial form—broad at the temples, pointed toward the chin—characteristic alike of the broad-headed Basques of France and of the long headed Basques on the Spanish side of the Pyrennees, is held by our author to be the result of such a process of sexual selection operating among this secluded people.² Thus again, to take a still more striking example, the uniformity of the Jews in feature—a uniformity holding good in spite of great dissimilarity in the more fundamental but less obvious form of the head—is attributed to sexual selection as the result of race consciousness. The countenance of the Jews is, then, of their own making from generation to generation, and it has come to be characteristic of all Jews independently of their original racial affinities.³

This theory of the effect of conjugal selection upon the aspect of the members of a social group is a favorite one with our author, and he applies it frequently with great skill to throw light upon cases, such as those of the Jews and Basques, that would otherwise be difficult of explanation. An obvious difficulty with the theory is that it fails to explain the origin of the traits in question or how they come to be accepted among a given group of population as especially characteristic. It would seem, for example, that the Basques must have already acquired pretty generally their peculiar form of face before it would be recognized among them as a mark of distinction and an element in their ideal of sexual beauty. It appears, therefore, that the theory serves better to explain the perpetuation of certain physical characteristics in a given population, than their original acquirement and extension throughout the group.

Another obvious criticism is that Ripley drags in this hypothesis in some cases where it is hardly needed. One example of this may profitably be noted in some detail as it concerns a matter of considerable importance, and as it serves also to illustrate a weakness in logic which crops out occasionally in different parts of the work. After attributing

¹ Pp. 469-470.

² Pp. 200 *et seq.*

³ Pp. 398 *et seq.*, p. 202.

Ripley shows from the varying head-form among the Jews that they are of mixed racial descent, that they are not indeed a race but only a people. This part of his theory has been anticipated by Lapouge, *Les Selections sociales*, Paris, 1896, pp. 136 *et seq.* Professor Ripley's argument has been criticised, not very conclusively, by Jacobs, ("Are Jews Jews?" *Popular Science Monthly*, August 1899).

the light pigmentation of the Teutonic race to its prolonged habitat in northern Europe, Ripley says:

Climate as an explanation for the derived blondness of the Teutonic race is not sufficient by itself to account for the phenomenon. Its blondness is something more than a direct product of the fogs of the German Ocean. *This is proved at once* by a significant fact, . . . viz., that blondness not only decreases as we proceed southward from Scandinavia, but in an easterly direction as well. In other words, the Russians at the latitude of Norway and Sweden are far more brunet in type than the Scandinavians. How shall we reconcile this with our environmental hypothesis? In the first place, the hordes speaking the Slavic languages are comparatively recent immigrants in that part of Europe. . . . For this reason comparisons between Scandinavia and the lands directly east of it are *vitiated at once*.¹

This last is quite correct, and entirely disposes of the alleged proof against the competency of the environmental hypothesis of the blondness prevalent among the Teutons.

The work concludes with a very able chapter on the question of the possibility of the acclimatization of European races in the tropics. This is obviously a matter of the greatest social, economic, and political importance for overcrowded Europe. In most tropical countries, especially where dampness and lack of variety add to the insalubrity of the climate, it appears from a consideration of all the evidence that it is practically impossible for the north Europeans to perpetuate their race. The Alpine type appears to fare rather better, and the Mediterraneans naturally the best of all. Ripley might perhaps advantageously emphasize more than he does this racial aspect of the problem. *Homo Europæus* has acquired his blondness and his lymphatic constitution by prolonged habitation in a cool, moist climate, free from the extremes of heat and the intense sunshine of the tropics. The Anglo-Saxons and the Germans may dominate the tropics but they cannot populate them. Perhaps the Italians, but much more probably the Chinese, will come to constitute the mass of population wherever the indigenous races are supplanted.

III.

To return from the future to the past, I shall consider some of Ripley's theories of the origin and history of the different races of Europe. And first by the way of contrast I shall give a summary of

¹ Pp. 468, 469.

the prehistory and history of *Homo Europaeus* as traced in the forthcoming monograph of Lapouge devoted to that race. I take this method of comparing the views of the two authors, because Lapouge's treatment of the matter is an argument instead of an exposition, and again because it concentrates attention upon the race which is of most interest from our present point of view, which is sociological rather than anthropological in the descriptive sense. If, that is, prehistoric anthropology supports Lapouge's thesis of the social dominance of *Homo Europaeus* in many of the civilizations of the past, we have a commentary of great interest on the present predominance of that race as indicated in the data of anthropo-sociology.

The earliest history (or rather the earliest prehistory) of *Homo Europaeus* may, according to Lapouge, be inferred from his racial physiology. This race, as I have intimated in another connection, is characterized first by its lymphatic constitution. Lymphatism is not indeed restricted to this race. It is found among various races in the case of individuals, or of isolated groups in marshy regions or under unhygienic conditions. But in all such cases it is accidental or exceptional. With *Homo Europaeus* it is, on the contrary, an ethnic characteristic, the absence of which is exceptional. These tissues gorged with lymph are the immediate cause of the characteristic morphology and coloration of this race. The members are full and rounded, the muscles inflated, one might almost say padded, with tissues which soften the outlines of the figure; the skin, delicate, pliant, and but slightly protected by the epidermis, lets the color given by the abundant circulation appear on the surface.²

Homo Europaeus is, too, the only race of men which has under normal conditions, without cross breeding, and as an ethnic trait, blond hair and light eyes. The primates in general have rather dark eyes and hair, of various colors but rarely entirely black. Man also has in general dark eyes, and moreover his hair is always black except in the race *Europaeus*, its crosses, and some exceptions of a pathological kind. The peculiar position of this race among the varieties of man and indeed among the primates as a whole can only be explained by the selective effect of a prolonged residence in a climate which would produce these peculiarities and in which they would be of benefit to the individual.

By this manner of reasoning, Lapouge proceeds by an elaborate study of the phenomena of pigmentation on the one hand, and of prehistoric geological and climatic conditions on the other hand, to prove that the home of *Europaeus* must have been in the northwest of Europe, in the region now

² The greater quantity of water with which the tissues of *Homo Europaeus* are impregnated gives them a less specific gravity. See the researches of Mies communicated to the Twelfth International Medical Congress, Moscow, 1897.

partly covered by the North Sea, corresponding, that is, to the present principal habitat of that race.

Now in the sepulchres of England and Scotland belonging to the commencement and middle of the neolithic period are found crania some of which have, according to Lapouge, the form and characteristics of *Homo Europæus*, others of which resemble the Mediterranean *Homo Meridionalis*, and others of which are intermediate.

During the neolithic a great movement of migration apparently set in toward the southwest. To this movement Lapouge attributes the innumerable dolmens of France which correspond to the latter half of the neolithic and the beginning of the metal period. The distribution of the great mass of these dolmens follows what must have been a broad belt of migration reaching from Brittany to the Mediterranean between the Garonne on the south, and Picardy and the Rhone on the north and east. Moreover the archæological study of the funeral furniture shows that the dolmens of the northern part of this area are the more ancient while those in the south of France are almost all on the confines of the bronze age and many indeed are to be included in it. The relative location of the dolmens indicates that the people whose remains they hold were skilled in navigation, advancing preferably along the course of the principal rivers; and exactly similar dolmens along the coasts of Portugal and Spain show that these people were capable of journeying upon the high seas and that they colonized the coast as far as Gibraltar. A prolongation of this migratory movement has left similar monuments in the Mediterranean islands, on some points of the Italian coast and in the region between Algiers and Egypt.

All these dolmens furnish anthropological types analogous to those of the neolithic sepulchres of Great Britain, with, however, a larger proportion of crania of the type *meridionalis*, and also with a certain proportion belonging to local races. These migrants reached the frontiers of Egypt as early as four thousand years before our era, and they or their descendants are probably the blond peoples known to the Greeks as Libyans and to the Egyptians as Lebus or Tamahous.

To return to the main body of *Homo Europæus*, it appears that this race had during the neolithic period expanded from its habitat in the northwest over much of central Europe. Toward the end of the neolithic and the commencement of the age of bronze, the encroachments of the sea put in movement new bodies of *Homo Europæus*. It is at the end of this last invasion that Lapouge places the beginning of the Aryan civilization of central Europe. This civilization developed not among a homogeneous people but in an ethnic environment already very complex. The thesis of Lapouge is that *Homo Europæus* was that dominant element among the Aryan peoples, the element to which the rise of the Aryan civilization is primarily to be attributed.

This conclusion is arrived at by an elaborate study of the crania of the period in connection with the methods of interment. *Homo Europæus* appears to be the only type that is found everywhere in the neolithic sepulchres. In certain regions it is found alone, in forms varying somewhat but often identical with those of the present population of the same locality. In other sections it is represented by individuals of practically pure race and also by cross-breeds in which the type is, however, clearly recognizable. Wherever brachycephalic crania are found in these neolithic burying places they appear to represent accessory or accidental elements in the population. Thus in Switzerland, where the material has been most carefully studied, the sepulchres contain scarcely any brachycephalic crania; and the brachycephalic remains of the lake dwellings, being simply skulls without the other bones, and having been in many cases worked, are thought to be trophies or fetishes made from the skulls of vanquished brachycephalics. In France the brachycephalics are usually represented in the sepulchres only by feminine subjects. Of the typical brachycephalic *Homo Contractus* there are only three or four masculine crania as against two dozen feminine ones. Of these masculine skulls all but one come from Thoran where they were found as the cortège of a dolichocephalic chief interred with his weapons.

Toward the end of the neolithic there appear in Belgium, England, Italy, Poland and southern Russia brachycephalics of various types who, Lapouge holds, were driven from the central region by the advance of *Homo Europæus* that we have just described. The more primitive form of *Homo Europæus* — the Finno-Ugrians — were at the same time crowded toward Russia, where their crania are found principally in the small dolmens and kurgans. These people penetrated into Asia by a route south of the Black Sea; the philologists regard the most ancient language of Babylonia, the Akkadian or Sumerian, as belonging to the Finno-Ugrian group and some ancient Chaldean crania bear out this hypothesis. The Guti of western Persia are described in texts as early as 2000 B. C. as blond, or at least as light (*namrutim*). The Amorites were probably of this race; the Egyptian monuments show them as blond, tall, dolichocephalic and with prominent aquiline noses; they interred their dead in dolmens of which there are over 700 in the country of Moab. The Finno-Ugrians made expeditions also into Siberia and central Asia; the Chinese historians and geographers describe tribes of these blonds as inhabiting most of the north of Asia where the Mongolian element dominates today.¹

¹ The terrible Attila appears to have been of the Mongolian race, but otherwise the tribes which threw themselves at different times upon the civilization of Europe were governed by blonds. The great Genghis Khan, and Tamerlane were of the race *Europæus* and contemporary portraits describe them with the traits of the Germans and Scandinavians. Rubruquis compares Genghis Khan to a Norman gentleman, Jean de Beaumont.

Following these Finno-Ugrians the Aryans proper early penetrated into Asia. The Indo-Iranian branch separated from the main body after the use of metals had begun, and apparently settled for a long period in Russia before proceeding to the east. The arrival of the Hindus in India dates perhaps from about 1500 before our era, the probable date of the first considerable monuments of that region, the dolmens of European origin. Ujfalvy thinks that the dolicho-blond type was mostly eliminated from the Hindus by the time of their arrival. But the Mahabhârâta describes the Pandavas as blond and tall, and the Brahmins still have a proportion of blonds, and, as shown by the statistics of Risley, are more closely related than the mass of the population to the type *Europæus* as regards stature, cephalic index and nasal index. The Persians of pure race appear to have been blonds. Thus the nobles figured on the sarcophagi described by Hamdy-Bey and Reinach have blond or chestnut hair and the physiognomy of the ancient Gauls or Germans. The Hittites were probably a mixture of brachycephalics and dolicho-blonds. The ancient historians speak of the domination in Asia for a long period prior to 1000 B. C. by Scythians, of whose physical traits nothing is known. The Scythians of southern Russia are represented in the texts as blonds and, by Hippocrates especially, as extremely lymphatic, and 75 per cent. of their skulls are purely of the type *Europæus*. Xenophon tells us that the Thracians represented their gods in their own image, giving them red hair and blue eyes, and Galien compares the Thracians to the Scythians and to the Gauls and Germans.

Toward the year 2000 B. C., successive waves of Aryans spread out from central Europe—the Medes, Persians, and Hindus toward Asia; the ancestors of the Italians toward Gaul; and those of the Hellenic people toward the Adriatic. These two last currents invaded Italy, the islands from Corsica to Cyprus, and the coasts of the Ægean. These bold navigators founded numerous states in the western basin of the Mediterranean, and even sought about the year 1320, to conquer the empire of the Pharaohs. The brilliant Mycænic civilization followed that of these Ægeans, and then arose the civilization of Greece. The movements of these peoples from central Europe can be inferred from the fact that their monuments and instruments are of the type originating in central Europe. That this is not the result of simple interchange or trading is indicated by the absence during this period in central Europe, and even in Sardinia and Sicily, of oriental objects that might have been obtained in such exchange. Similarly the practice of cremation originated in central Europe at the end of the neolithic and reached the Ægean only at the classic period.¹ The “peoples of the sea” who made war against Egypt were naturally of

¹ It is a mistake to suppose that this practice originated in Asia. No people in Asia, Africa, or eastern Europe practiced it, so far as known, until a later period. In Asia it commenced in India, and only toward the fifth century B. C.

various races ; some of the tribes were decidedly of the type *Europæus*. This race appears also among the crania of the Mycenians. Of the early population of Italy, the crania of the Umbrians show a mixture of *Homo Europæus* and *Contractus* ; those of the Etruscans show a preponderance of the former element, especially in the upper classes. Other series of Italian crania contemporaneous with the founding of Rome indicate the presence of *Homo Europæus* and *Meridionalis*, the former being rather more numerous.

For the Greeks the crania that have been studied are comparatively few, but the indications as to pigmentation are abundant. The crania are dolichocephalic, with an index of about 75. As to pigmentation, the Greeks represent as blond the gods, the heroes, the great men, and the free citizens. The colors with which they painted their statues were often conventional or merely decorative, but it is perhaps significant that, with the exception of representations of slaves and strangers, the hair is almost always given a yellow or reddish tint. In Greek literature nearly all the gods are described as blond, as are practically all the heroes on the side of the Greeks. This description of the gods and heroes might conceivably be merely conventional, or the reflection of an ideal of beauty, rather than of the physical type of the actual population. The fact that living Greeks are usually described as blond is not open to this objection. There is some indication that the Thebans were dark-haired, but the Lacedæmonians are expressly described as yellow-haired (*ξανθοί*).

For the Romans of the republic there are but few indications, partly owing to the practice of cremation and partly owing to the scarcity of personal descriptions in the literature. In the prehistoric or proto-historic series of crania described by Sergi, *Europæus* appears to be the dominant element. Such proper names as Fulvius, Flavius, Rufus, and Ahenobarbus indicate blondness, but they may be in most cases merely traditional or patronymic names. There are few descriptions of individuals. Cato, according to an anonymous epigram, had red or reddish hair (*ὑπέρρος*) and grayish-blue eyes (*γλαυκόμενος*). Of later representations of ancient families, Messalina was a brunette, and Poppæa and Nero were blond.

By the time of the empire the ancient families, and especially the patricians, were nearly extinct, in the biological sense, from the long series of wars, foreign and civil. The Romans of the empire were Romans by name but not by blood. The crania which have been studied for this period are probably not very representative ; *Homo Contractus* is the most frequent type in the center of Italy, *Homo Meridionalis* in the south, and *Homo Europæus* toward the north. The authors of the period describe many personages, many as blond, many also as dark. Of the emperors, Constantine is depicted as dark and thickset, Valens as dark, and Valentinian as tall, light-haired and blue-eyed. The agitator, Valvomeres, was tall and red-haired, and the generals, Marcentius and Gentius, were blond.

The Gauls were tall, dolichocephalic blonds, with blue eyes. This is true of the Gauls of Italy, of Gaul, and of Great Britain, of the Carnutes, Ruthenes, and Brettones. The Celtæ were as dolichocephalic as the Galatæ. The same is of course true of the Germans, who were uniformly of the race *Europæus*.

The ancient Slavs were also of this race, in spite of the brachycephaly of the modern population of Slavic countries. The study of the crania indicates that this brachycephaly is of recent date only, and that it is due to the prodigious increase of the brachycephalic elements among these populations. Thus, the skulls of the Slavic cemeteries in Germany described by Virchow, and the other crania of these western Slavs, are of the pure type *Europæus*, with an index of about 75. A series of Slavic skulls of the region of Bohemia shows *Homo Europæus* as the dominant type. In this region the cephalic index has varied about as follows; Stone age and age of bronze, 72.2; iron age, about 80; Slavic period, 78; the sixteenth century, 81.7; skulls from modern cemeteries, 83.3. In the region of Poland the Slavic element *Europæus* was superposed upon an indigenous brachycephalic element. Thus at Slaboszewo, in the tombs of the eleventh century, the masculine crania are all of the type *Europæus*, with an index of 74.3, while the feminine skulls are of a cross between that and some brachycephalic type. It is the same in the tombs at Zarnowka and Popow. The explanation must be that male immigrants of the dolicho-blond race married women indigenous to the region, who were interred with them. The Slavs of Russia were also largely dolichocephalic. Everywhere the percentage of brachycephalic skulls increases from the Slavic period to the present.

This phenomenon of the increase of the proportion of brachycephalics among the population is, moreover, general throughout nearly the whole of Europe, except Great Britain, and holds in nearly every region where the comparison has been made. Thus in southern Germany, in Bavaria, the proportion of brachycephalics increases from 14 per cent. among the Reihengräber to 32 per cent. among the crania of the tenth to the twelfth centuries, and to 83 per cent. among the skulls of the modern cemeteries; while the proportion of the strictly dolichocephalic crania falls from 42 per cent. to 32 per cent., and then to 1 per cent. Thus in France the indices of Aveyron, of Herault, of Tarn, of Tarn-et-Garonne, and of Gard have increased from the middle ages from 78 or 79 to anywhere from 82 to 86 according to locality. The index of crania of the cemeteries of Paris gradually rose through the middle ages, but has since remained relatively constant, probably because of the constant replenishment of the urban population by dolichocephalic migrants from various parts of France.

The documents and literature of the middle ages in general depict the higher classes as tall, slight, and blond.

Such in brief outline is what Lapouge holds to have been the part

played by *Homo Europæus* in prehistoric and historic times. I shall now suggest some points of similarity and of contrast between these theories and those of Professor Ripley, so far as the two come into contact.

In the first place Professor Ripley adopts a similar view of the origin of *Homo Europæus*, attributing his blondness and physical peculiarities largely to the climatic conditions of his habitat in the north of Europe.¹ I have already in another connection criticised Professor Ripley's argument that sexual selection also played a part in the acquirement of this blondness.

As against the view of Lapouge that *Homo Europæus* constituted an important element among the neolithic population of Great Britain and in the early migratory movement toward Africa, Professor Ripley regards these neolithic peoples as of the Mediterranean type, supporting this view partly by the argument of general probability and partly by reference to the dark pigmentation of certain present populations supposed to represent these ancient ones.² No doubt the populations in question were largely of the dark Mediterranean type, but there is nothing in this to refute Lapouge's claim that they contained also a proportion of blonds. Professor Ripley does not consider the positive evidence advanced in support of this last claim, nor does he consider the evidence from the resemblance of many of the crania to the form *Europæus*. Nor do I think that his argument as to stature³ applies against Lapouge's hypothesis of the mixed race of these populations, since their stature was intermediate, or perhaps nearly equal to that of the ancient Teutons before these last had acquired the full height now characteristic of the race.

More important are the questions concerning the development of the Aryans proper, which, as we have seen, Lapouge holds to have occurred in central Europe among a people of whom the dominant type was *Homo Europæus*. Professor Ripley admits and, indeed, insists upon, the fact of the development in Europe during the stone age of an entirely indigenous culture marked by a great advance in the fashioning of implements, and by the construction of stone dolmens, etc.⁴ Holding that the brachycephalics entered Europe from Asia, probably from Asia Minor,⁵ he is inclined to discredit the theory which has attributed the introduction of bronze, cereals, settled agricul-

¹ Pp. 467 *et seq.*

³ Pp. 466, 307.

⁴ Pp. 488 *et seq.*

² Pp. 465-466, 174 *et seq.*, 306 *et seq.*

⁵ P. 473.

ture, and the practice of cremating the dead, to these brachycephalics.¹ In both these matters his position is intermediate between the older theories of Mortillet and Topinard and the views that we have summarized from Lapouge. But Professor Ripley is still disposed to seek the origin of features of European cultures in other continents in cases where Lapouge would trace the relationship in the opposite direction.

One great difference between the point of view of Professor Ripley and that of Lapouge in connection with these problems of prehistoric anthropology is that the former seems generally to conceive of a given population as a unit and to ask what was *the* type prevalent among it, whereas the latter always asks first what were *the different types* present and which of them was characteristic of the leading classes. For this reason, perhaps, and also from the attention that he has given to the working of racial selection in recent and present populations, it appears perfectly natural to Lapouge that the dominant class of an ancient civilization should have wholly or largely disappeared among the modern people bearing the same name; whereas Professor Ripley is always disposed to find in the present population the image of the ancient. For this reason the two authors attach very different relative weight to contemporary records and remains on the one hand, and the evidence from the type of the present population on the other hand. The clearest and most interesting instance of this difference is in the treatment that Lapouge and Professor Ripley respectively give to the question of the physical type of the ancient Greeks. We have already summarized Lapouge's argument that, at least, the upper classes were dolicho-blonds of the race *Europaeus*. By way of contrast I quote the gist of Professor Ripley's argument that the Greeks were of the race *Meridionalis*.

Their admiration for blondness in heroes and deities is well known . . . but to regard this as proof that the Greeks themselves were of this type is a broad interpretation which is scarcely justifiable. . . . Every characteristic in their modern descendants and every analogy with the neighboring populations, leads us to the conclusion that the classical Hellenes were distinctly of the Mediterranean racial type.

Unfortunately for this view, Bachylides describes not only the gods but also the Lacedemonian women as golden haired, and Polemon, as quoted by Adamantius, uses the same adjective (*ξανθός*) in describing the Greek citizens as distinguished from the lower classes.

¹ Pp. 497-502.

Another point of difference is that Lapouge always attributes blondness among any people to a migration or infiltration of blond elements, ultimately from the north of Europe. Professor Ripley, on the other hand, sometimes attributes such blondness to local environmental influences. Thus he suggests that the blondness among the Libyans¹ and among the Amorites² may be due to their local habitat in mountainous regions. This seems somewhat improbable; and moreover it fails to account for the resemblances of the crania of these and other scattered peoples to the form *Europæus*.

This brings us to another point of difference, the attention given by Lapouge to the form and structure of the various crania considered. In considering prehistoric problems Professor Ripley's study of the crania seldom touches more than the cephalic index. This difference in method is seen for example in the arguments of the two authors which we have discussed above as to the neolithic population of Great Britain.

IV.

If I shall have to criticise somewhat unfavorably Professor Ripley's attitude toward the generalizations, or—if for the sake of brevity one may venture to call them such—the laws of anthropo-sociology, it is because of the form rather than the substance of his treatment of the subject. The casual reader of his chapter on “Environment *versus* Race” would gather that he had triumphantly refuted the theory of differences in ability and energy between *Homo Europæus* and the brachycephalic race and had pretty effectually disposed of the work of the anthropo-sociological school. But the careful reader of his chapter on “Urban Problems,” especially in connection with his earlier paper on “Ethnic Influences in Vital Statistics,”³ will see that Professor Ripley is himself an anthropo-sociologist, that he has been brought by the evidence accumulated by Ammon, Lapouge and their coworkers to accept about nine tenths of their generalizations, and that he even carries some of these further than they have ventured to do.

To discuss, or even to present, the concrete data upon which rest the generalizations of anthropo-sociology would be impossible within the limits of this review, but the reader will find a part of them in pre-

¹ Pp. 279-280.

² P. 77

³ *Publications of the American Statistical Association*, 1896, vol. v. pp. 18-40.

vious articles in this JOURNAL.¹ It should be emphasized that the more important laws were discovered in the course of inquiries undertaken first with a purely descriptive purpose. In the early nineties, Ammon, in collecting data for the Anthropological Commission of Karlsruhe, discovered that everywhere in Baden the urban populations were more dolichocephalic than the rural inhabitants. This result was reached wholly independently of the similar investigations of Lapouge in southern France, which had already shown that the upper classes were in that region more dolichocephalic than the mass of the population. These results tallied with data which had been collected much earlier, but not fully analyzed, by Durand de Gros in Averron. In 1894, working over data collected by Lapouge, Fallot, and Collignon, I found not only that the urban population was more dolichocephalic than the rural, but that the migratory elements were more dolichocephalic than the sedentary populations from which they came. This last result was, indeed, already indicated by Lapouge's striking discovery that the children of parents born in different cantons of southern France were more dolichocephalic than the children of parents born in the same canton. At about the same time Collignon's study of urban and rural indices in the southwest of France, brought him into substantial agreement with the views of Lapouge and Ammon. From this time on similar inquiries multiplied in the hands of Wiesbach in Austria, Dietlein and Chalemeau in Switzerland, Ranke in Bavaria, Ammon in Baden, Lapouge and Muffang in France. The results have been almost uniformly in support of the theory that migration from the country to the cities and from the mountains to the rich plains draws more largely from the dolichocephalic than from the brachycephalic elements in the rural population. Only thus can we account for the fact that the population of the large cities in the terri-

¹ "Recent Progress of Social Anthropology," JOURNAL OF POLITICAL ECONOMY, 1896, vol. iv. No. 3; "Social Selection," *ibid.*, 1896, vol. iv. No. 4; "The Pedagogical Significance of the Cephalic Index," *ibid.*, 1898, vol. vi No. 2; "Further Data of Anthro-Sociology," *ibid.*, 1899, vol. vii. No. 2; and especially "The Fundamental Laws of Anthro-Sociology," *ibid.*, 1897, vol. vi. No. 1.

Cf. also "Dissociation by Displacement: a Phase of Social Selection," *Quarterly Journal of Economics*, 1896, vol. x. No. 2; and *Revue internationale de Sociologie*, 1896, vol. iv. No. 7; "Ethnic Stratification and Displacement," *Quarterly Journal of Economics*, 1896, vol. xi. No. 1; "The Hierarchy of European Races," *American Journal of Sociology*, 1897, vol. iii. No. 3, and *Revue internationale de Sociologie*, 1898; "Die Auswanderung von Europa im Lichte der Social-Anthropologie," *Naturwissenschaftliche Wochenschrift*, 1899, vol. xiv. No. 19.

tory where these two races come into question is more dolichocephalic not only than that of the suburbs and the surrounding region, but also than that of the respective countries in which they are located.¹

The dolichocephalics appear to be more migratory than the brachycephalics in a still larger sense. Not only are they more ready to seek their fortune in the cities, but they seem to have entered more largely into migration to foreign countries, at least wherever, as especially in the earlier days, such a change of residence required a considerable degree of courage, enterprise, and ambition. Thus the indications are that at least the earlier emigrants from Germany, France, and Switzerland to the United States were more largely composed of this type than the home populations. Such is the inference to be drawn from my measurements of such migrants and of their sons in California. The same conclusion appears to follow from Professor Ripley's statistics of the students of the Massachusetts Institute of Technology; for the average index of these students, whose ancestors in some proportion must have come from the brachycephalic part of Europe, is no higher than of English students as examined by Muffang.

Less extensive but hardly less uniform are the data that indicate the greater energy, enterprise, will-power, and originality of the dolichocephalic type as compared with the brachycephalic. The latter is perhaps fully as intelligent, and is probably superior in the acquirement of knowledge, especially of the sort that requires receptivity and power of memory,² but he possesses less often the power of initia-

¹ For this last reason the dolichocephaly of the cities cannot be explained to any extent on the hypothesis of Livi and (formerly) of Professor Ripley, that the cities in relatively brachycephalic regions are more dolichocephalic than the immediately surrounding region, because they draw partly from the country as a whole. For the Frenchmen in Paris are more dolichocephalic than those of any considerable part of France, and the same thing is true of the other large cities so far as examined. Moreover some of the data are, as I have noted above, in such form as to enable us to trace in detail the process of draining from the country toward the cities of the more dolichocephalic rural elements.

² This point has been frequently brought out by the anthropo-sociologists, and Muffang especially has shown that while the relatively dolichocephalic students succeed better in studies requiring initiative and reasoning power, the brachycephalics excel in branches demanding receptivity and power of memory (see JOURNAL OF POLITICAL ECONOMY, March 1898, pp. 263-265). The recently published data of Dr. Arthur MacDonald show that among American school children, there are more "bright" and fewer "dull" pupils among those whose cephalic indices (75 to 80) indicate the race type *Europæus* than among those whose indices (80 to 85) indicate descent from *Alpinus*

tive characteristic of the pioneers of progress. This characterization of the two types is of course in part provisional, but in its main outlines it seems to be based upon adequate data. In a general way, it is found, by many examinations of living individuals and of crania, that the proportion of dolichocephalics increases at every step as the comparison mounts from the lower to the higher social categories, from the peasants to the urban population, from the proletariat to the working class proper, from the masses to the professional classes and to the nobility.

Up to this point Professor Ripley is in substantial agreement with the anthropo-sociologists, in that he accepts fully the laws of the greater mobility and the urban concentration of the dolichocephalics, and in large measure the law of their larger proportional representation in the upper social categories. In respect to urban concentration, he does, indeed, emphasize one anomaly, namely, that the city populations, although more dolichocephalic, are nevertheless usually darker than the country people. This is, I think, the most valuable part of Professor Ripley's whole criticism, and I give in a footnote the gist of his explanation of the phenomenon in question, together with the explanation suggested by Lapouge—the two being complementary rather than antagonistic.¹

or *Dinaricus*. The extremely dolichocephalic type (perhaps partly of Mediterranean race) seems to succeed well among the girls but very poorly among the boys, for whom the data are more extensive. This last appears to support the theory frequently brought forward by Lapouge, that indices below 74 indicate often a lack of mentality (see *Les sélections sociales*, Paris, 1896, p. 79). Because of a difference in terminology, the conclusion of MacDonald may seem to the careless reader of his summary to controvert those of the anthropo-sociologists, but in reality his data are in complete harmony with ours, and constitute a welcome addition to the material of the science of anthropo-sociology. I explain their significance more fully in a paper that will shortly appear in the *Naturwissenschaftliche Wochenschrift*.

¹ PROFESSOR RIPLEY says: "It is not improbable that there is in brunetness, in the dark hair and eye, some indication of vital superiority. . . . If in the same community [and within the same race] there were a slight vital advantage in brunetness, we should expect to find that type slowly aggregating in the cities. . . . Selection thus would be doubly operative. It would determine both the character of the urban immigrants and, to coin a phrase, of the urban *persistants* as well" (p. 557).

If it is allowable to add the words "within the same (*i. e.*, the dolicho-blond) race," as I have done above in brackets, Professor Ripley's explanation becomes closely analogous to that of Lapouge, which is as follows:

"Urban populations, more dolichocephalic than the rural populations from which they are recruited, are yet in general less blond, instead of more blond, as we should

If, however, the mass of the urbans tend rather to brunetness, the upper classes and especially the nobility all over Europe appear to be still, as in the past, not only dolichocephalic, but in a marked degree tall and blond. In this matter Professor Ripley is in full accord with Ammon and Lapouge. One might cite a dozen passages in which he is more emphatic on this point than most of us would venture to be. Thus he speaks of "the racial Teutonism of the upper classes all over Europe" as "definitely established"¹ and affirms that :

expect. This may perhaps be explained on the hypothesis that the blondness characteristic of *Homo Europaeus* may tend under certain conditions to disappear from natural causes.

"If, that is, depigmentation is, as we have argued, a semi-pathological phenomenon, a relatively new characteristic with man, acquired under the peculiar climatic condition of the habitat of *Homo Europaeus*, it is comprehensible that the trait in question may in a sense be cured, or that it may yield either to the influence of atavism, or to a new tendency to variation toward the dark pigmentation originally universal. I am disposed to think that the individuals of more or less dark coloration but otherwise possessing all the characteristics physical and psychological of *Europaeus*, may be examples of *Europaeus* cured of his depigmentation, or of a darker variety of that race in process of formation. This is, of course, only a hypothesis, but it at any rate helps to explain certain facts of a very obscure etiology.

"It is well understood among biologists that pigmentation is a protection to the individual. This appears very clearly in the increase of pigmentation from childhood to maturity among all peoples who have a strain of the blood *Europaeus*. The children of such peoples are usually born more or less blond, and become progressively darker. This increasing nigrescence is often referred to the influence of brunet ancestors. But if this were the cause, it ought to work also in the opposite direction, and the more brunet children ought to bleach out toward maturity from the influence of the blonds among their ancestors. The real cause is evidently an adaptation of the child to environment; the influences that originally produced blondness among the race *Europaeus* have ceased to act, and the organism tends to readjust itself, to return to the dark pigmentation originally normal and better adapted also to present condition.

"Moreover, experimental zoölogy shows that under new or abnormal conditions there are produced experimental varieties of animals and plants, some novel and some with a tendency toward atavism. . . . Why, then, may not the influence of the absolutely abnormal life of the urban, and especially of the intellectual classes, produce effects of the same sort, not only upon the embryo, but upon the living individual, young or even adult? At any rate, the hair of the urban-born, according to statistics still however somewhat ambiguous, appears, other conditions being equal, to darken more rapidly and in a larger proportion of cases than that of the rural born" (*L'Argen*, pp. 39-42).

¹ P. 455.

The upper classes in France, Germany, Austria, and the British Isles are distinctly lighter in hair and eyes than the peasantry. . . . Both tall stature and blondness constitute insignia of noble descent. Since the time of the Eddas, the servile ones have been described as short brunets.¹

As regards the mobility of *Homo Europæus*, he says:

The contrast of this type whose *energy* has carried it all over Europe with the persistently sedentary Alpine race is very marked. A certain *passivity* or patience is characteristic of the Alpine peasantry . . . from Spain to Russia.²

It is significant, too, that he regards as blond³ the French Huguenots, a stock which has been pre-eminently rich in pioneers of progress.⁴

With all these points of agreement, it seems doubly strange that Professor Ripley should apparently scorn the idea that race has very much to do with the progress of the different parts of Europe. Still, the chapter on "Environment *versus* Race" lays all the emphasis on the first of these factors, and most differences in social phenomena are held to be the necessary outcome, not so much of racial proclivities as of the geographical conditions. Of course, ultimately we agree that environment fashions the race through a selective process, but, once formed, the racial character is persistent, as is shown by the continuance of racial lines in the ever re-forming of strata of social categories. For the rest, it is not so much a matter of "race *versus* environment" as it is of race taking advantage of environment; for, given a sufficient time, the more active and ambitious elements will concentrate in the most favorable environment. It is this that gives social significance to the concentration of *Homo Europæus* in the rich plains, and especially in the cities and the upper social categories.

In attempting to refute the social significance of race, Professor Ripley has no difficulty in picking flaws in the theories of Morselli and Bertillon, that the rate of suicide and the rate of divorce are higher wherever the dolichocephalic-blond enters largely into the population. He shows that, whereas the correlation holds good in France, it seems to fail in Germany, where the rate of suicide is highest in Saxony despite its comparative brachycephaly. I have no call to defend the theories of these writers, whose ideas do, indeed,

¹ P. 469.

² P. 601.

³ P. 33. There are indications that they were also dolichocephalic.

⁴ The scientific eminence of the Swiss is largely due to the descendants of these exiled families.

bear a superficial resemblance to those of the anthropo-sociological school, but whose method of proof is fundamentally different and certainly very faulty. Still I fancy their view is, after all, in general, not so far astray as Ripley seems to think. Although Saxony, compared crudely with north Germany, does apparently refute the alleged correlation, it seems probable that a comparison between the dolichocephalic and the brachycephalic regions of south Germany in greater detail would tend to re-establish the theory of Morselli that racial tendencies have a considerable bearing upon the rate of suicide.¹

Something the same answer may be given to Professor Ripley's implied criticism of Lapouge's theory, that the wealth and industry of different communities are in correlation with the proportion of dolichocephalics among them. That generalization is indeed open to attack, for whereas the other laws of anthropo-sociology rest upon the study of individuals in the different categories, this particular one is reached primarily by a comparison of areas populated by one or the other of the races in question. The method is, then, a little in the nature of Morselli's, but Lapouge's generalization has an indirect support, which Morselli's lacks, from the other laws which rest upon the surer basis of concrete data as to different social categories. If the proof of this generalization, is, however, open to some criticism on the ground of inconclusiveness, Professor Ripley's refutation is still more open to this objection, for he presents no exact data at all, but merely hints that brachycephalic Saxony is after all—judged by the criterion of a high rate of suicide!—more civilized than the dolichocephalic parts of Germany. It would be more to the point to show—what is probably the case—that Saxony is the most developed, from an industrial point of view, of the German states. But this again would be no adequate refutation of the theory, for apart from the possibility that Saxony might be an exception to what is otherwise apparently a pretty general rule, it might still be true that Saxon industry owes its development to dolichocephalic entrepreneurs or inventors, combined with an intelligent and laborious working class, which is certainly content with a very small remuneration. Moreover, apart from this wholesale comparison of Saxony with the north, the

¹ By the way, Ripley's position in this matter was most excellently anticipated about the middle of the present century by A. Brierre de Boismont in his chapter on "The Relations of Suicide with Civilization" (in his *Du suicide et de la folie suicide*, Paris, second edition, 1865).

correlation between the cephalic index and the distribution of wealth apparently holds good in Germany and Switzerland, as in France, for the rich open valleys, and especially the cities, which are the centers of wealth and industry, are also characterized by the disproportionate abundance of *Homo Europaeus* in their population.¹

Professor Ripley also argues that the correlation which Lapouge has shown between the comparative number of great men and the presence of the element *Europaeus* on the population is due only to the fact that this race is located in the parts of Europe where the cities, and therefore the facilities for culture, are most abundant. The most obvious answer is that it is not merely accidental that this race is concentrated in the areas and centers where the opportunities of life are the richest. This localization of race is rather the result of a long process of selection, to some extent military, but still more industrial and social. But more than this, the striking fact is that the great men of Europe, and especially the great pioneers of progress, have come, in an altogether disproportionate degree from those very social categories of which *Homo Europaeus* constitutes the largest element, from the professional classes, and especially from the nobility. DeCandolle has proved this conclusively, and more recently Odin has confirmed it in the greatest detail for France. Not only this, but Lapouge has shown from a study of the portraits of the greatest men of France, that they were overwhelmingly of the race *Europaeus*. Odin, whose work is valuable for our purpose, for the very reason that as he had no knowledge of anthropo-sociology, his results are from this point of view wholly impartial, selects some thirty-eight authors as unquestionably in the highest category. Eighteen of these names appear also on Lapouge's list of portraits studied, and of these eighteen portraits sixteen show the type *Europaeus*, and two the type *Alpinus*. Mindful of Professor Ripley's argument which begins, "Well, then, turn to Germany"² (although I think this bad anthropological advice, because the cephalic index of the different parts of Germany is not known in the same detail as for France), I have begun a study of the birth-place of several hundred of the leading German savants, scientists, inventors, etc., of the last two centuries. The preliminary result is

¹ For further criticism see this JOURNAL, vol. viii. No. 2, pp. 239 *et seq.*

² That is, to find a refutation of such correlations between cephalic index on the one hand, and on the other hand wealth, culture, and abundance of ability. Pp. 527 *et seq.*

not to refute but to confirm the correlation between dolicocephaly and the frequency of high ability, and especially of originality. As elsewhere, the results are the most striking if one takes a select list of only the foremost pioneers. Most conclusive of all is the list of great scientists. Of these I have found the birthplace of twenty-two taken from the list of the great leaders of science, published in a historical work, wholly impartial, of course, as regards our present subject. Of these one was born in a decidedly brachycephalic region ; one, or possibly two, in regions moderately brachycephalic ; four in intermediate or uncertain territory ; seven in dolichocephalic, and eight in decidedly dolichocephalic parts of Germany.

CARLOS C. CLOSSON.

LOS ANGELES.